Appl. No. 09/526,855 Amdt. dated March 24, 2004 Reply to Office Action of September 24, 2003

## **Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings of claims in the application:

## **Listing of Claims:**

Claim 1 (currently amended): A compound having the general formula:

$$\mathbb{R}^1$$
 $\mathbb{R}^2$ 
 $\mathbb{R}^4$ 
 $\mathbb{R}^3$ 

3 wherein:

1

2

6

9

11

13

4 R<sup>1</sup> is a member selected from the group consisting of -OCH<sub>3</sub>, -SCH<sub>3</sub>, -N(CH<sub>3</sub>)<sub>2</sub>,

5 -NHCH<sub>3</sub>, -NC<sub>4</sub>H<sub>8</sub>, -NC<sub>5</sub>H<sub>10</sub>, -NC<sub>4</sub>H<sub>8</sub>O, -CHO, -CH(OH)CH<sub>3</sub>, -C(O)CH<sub>3</sub>, -O(CH<sub>2</sub>)<sub>2</sub>N(CH<sub>3</sub>)<sub>2</sub>,

 $-O(CH_2)_2NC_4H_8$ , and  $-O(CH_2)_2NC_5H_{10}$ ;

R<sup>2</sup> is a member selected from the group consisting of hydrogen, halogen, alkyl,

8 acyl, hydroxy, alkoxy, acyloxy, alkylcarbonate, cypionyloxy, S-alkyl, -SCN, S-acyl, and

-OC(O)R<sup>6</sup>, wherein R<sup>6</sup> is a member selected from the group consisting of alkyl, alkoxy ester and

10 alkoxy;

R<sup>3</sup> is a member selected from the group consisting of alkyl-alkoxy, alkoxy and

12 acyloxy;

R<sup>4</sup> is a member selected from the group consisting of hydrogen and alkyl;

14 X is a member selected from the group consisting of =0 and  $=N-OR^5$ , wherein  $R^5$ 

is a member selected from the group consisting of hydrogen and alkyl; and

16 wherein:

```
if R<sup>1</sup> is -C(O)CH<sub>3</sub>, -OCH<sub>3</sub>, -SCH<sub>3</sub>, -N(CH<sub>3</sub>)<sub>2</sub> or -NHCH<sub>3</sub>, R<sup>2</sup> is hydrogen, R<sup>3</sup> is
17
        acetyloxy and R^4 is methyl, then X is other than =0 and =N-OR<sup>5</sup>, wherein R^5 is methyl; and
18
                            if R<sup>1</sup> is N(CH<sub>3</sub>)<sub>2</sub>, R<sup>2</sup> is hydroxy, R<sup>4</sup> is alkyl and X is =0, then R<sup>3</sup> is other than
19
20
        hydroxy.
                            Claim 2 (original): The compound in accordance with claim 1, wherein R<sup>1</sup> is a
 1
        member selected from the group consisting of -N(CH<sub>3</sub>)<sub>2</sub>, -NC<sub>4</sub>H<sub>8</sub>, -NC<sub>5</sub>H<sub>10</sub>, -NC<sub>4</sub>H<sub>8</sub>O,
 2
        -C(O)CH<sub>3</sub>, -O(CH<sub>2</sub>)<sub>2</sub>N(CH<sub>3</sub>)<sub>2</sub>, -O(CH<sub>2</sub>)<sub>2</sub>NC<sub>4</sub>H<sub>8</sub>, and -O(CH<sub>2</sub>)<sub>2</sub>NC<sub>5</sub>H<sub>10</sub>.
 3
 1
                            Claim 3 (previously presented): The compound in accordance with claim 1,
        wherein R<sup>2</sup> is a member selected from the group consisting of hydrogen, acyloxy, alkoxy, -SAc,
 2
        -SCN, -OC(O)CH<sub>2</sub>N(CH<sub>3</sub>)<sub>2</sub>, and -OC(O)R<sup>6</sup>, wherein R<sup>6</sup> is a member selected from the group
 3
        consisting of alky, alkoxy ester and alkoxy.
 4
                            Claim 4 (withdrawn): The compound in accordance with claim 3, wherein R<sup>2</sup> is
 1
        -OC(O)R<sup>6</sup> and R<sup>6</sup> is a member selected from the group consisting of -CH<sub>2</sub>CH<sub>3</sub>, -CH<sub>2</sub>OCH<sub>3</sub> and
 2
        -OCH<sub>3</sub>
 3
 1
                            Claim 5 (original): The compound in accordance with claim 1, wherein R<sup>2</sup> is an
 2
        alkoxy selected from the group consisting of methoxy, ethoxy, vinyloxy, ethynyloxy and
 3
        cyclopropyloxy.
 1
                            Claim 6 (previously presented): The compound in accordance with claim 1,
        wherein R<sup>3</sup> is a member selected from the group consisting of alkoxy and acyloxy.
 2
 1
                            Claim 7 (original): The compound in accordance with claim 1, wherein R<sup>4</sup> is
 2
        alkyl.
                            Claim 8 (original): The compound in accordance with claim 1, wherein X is =0.
 1
```

```
1
                        Claim 9 (withdrawn): The compound in accordance with claim 1, wherein X is
      =N-OR^5.
2
1
                        Claim 10 (withdrawn): The compound in accordance with claim 1, wherein:
                               R^1 is -N(CH_3)_2;
2
                               R<sup>2</sup> is hydrogen;
3
                               R<sup>3</sup> is acyloxy;
4
                               R<sup>4</sup> is methyl; and
5
                               X \text{ is } = 0.
                        Claim 11 (withdrawn): The compound in accordance with claim 10, wherein R<sup>3</sup>
1
      is acyloxy selected from the group consisting of -OC(O)H, -OC(O)CH<sub>2</sub>CH<sub>3</sub> and -OC(O)C<sub>6</sub>H<sub>13</sub>.
2
1
                        Claim 12 (withdrawn): The compound in accordance with claim 1, wherein:
                               R^{1} is -N(CH_{3})_{2};
2
                               R<sup>2</sup> is hydrogen;
3
                               R<sup>3</sup> is methoxymethyl;
4
                               R<sup>4</sup> is methyl; and
5
6
                               X is = 0.
1
                        Claim 13 (withdrawn): The compound in accordance with claim 1, wherein:
                               R^1 is -NC<sub>4</sub>H<sub>8</sub>:
2
                               R<sup>2</sup> is hydrogen;
3
                               R<sup>3</sup> is acetoxy;
4
                               R<sup>4</sup> is methyl; and
5
6
                               X \text{ is } = 0.
1
                        Claim 14 (withdrawn): The compound in accordance with claim 1, wherein:
                              R^{1} is -NC<sub>5</sub>H<sub>10</sub>;
2
```

```
R<sup>2</sup> is hydrogen;
3
                                 R<sup>3</sup> is acetoxy;
4
                                 R<sup>4</sup> is methyl; and
5
6
                                 X \text{ is } = 0.
                          Claim 15 (withdrawn): The compound in accordance with claim 1, wherein:
1
                                 R^1 is -NC<sub>4</sub>H<sub>8</sub>O;
2
                                 R<sup>2</sup> is hydrogen;
3
                                 R<sup>3</sup> is acetoxy;
                                 R<sup>4</sup> is methyl; and
5
                                 X \text{ is } = 0.
                          Claim 16 (canceled)
                          Claim 17 (withdrawn): The compound in accordance with claim 1, wherein:
1
                                 R^1 is -SCH<sub>3</sub>;
2
                                 R<sup>2</sup> is hydrogen;
3
                                 R<sup>3</sup> is acetoxy;
4
                                 R<sup>4</sup> is methyl; and
5
6
                                 X \text{ is } = 0.
                          Claim 18 (withdrawn): The compound in accordance with claim 1, wherein:
1
                                 R^1 is -N(CH_3)_2;
2
                                 R<sup>2</sup> is hydrogen;
3
                                 R<sup>3</sup> is methoxy;
                                 R<sup>4</sup> is methyl; and
5
6
                                 X \text{ is } = 0.
```

```
Claim 19 (withdrawn): The compound in accordance with claim 1, wherein:
1
                                 R^{1} is -NC<sub>5</sub>H<sub>10</sub>;
2
                                 R<sup>2</sup> is hydrogen;
3
                                 R<sup>3</sup> is methoxy;
4
                                 R<sup>4</sup> is methyl; and
5
                                 X \text{ is } = 0.
6
                          Claim 20 (withdrawn): The compound in accordance with claim 1, wherein:
1
                                 R^{1} is -NC<sub>5</sub>H<sub>10</sub>;
2
                                 R<sup>2</sup> is acetoxy;
3
                                 R<sup>3</sup> is acetoxy;
4
                                 R<sup>4</sup> is methyl; and
5
                                 X \text{ is } = 0.
6
                          Claim 21 (withdrawn): The compound in accordance with claim 1, wherein:
1
                                 R^1 is -C(O)CH_3;
2
                                 R<sup>2</sup> is acetoxy;
3
                                 R<sup>3</sup> is acetoxy;
4
                                 R<sup>4</sup> is methyl; and
5
                                 X \text{ is } = 0.
6
1
                         Claim 22 (withdrawn): The compound in accordance with claim 1, wherein:
                                 R^1 is -C(O)CH_3;
2
                                 R<sup>2</sup> is -SAc;
3
                                 R<sup>3</sup> is acetoxy;
4
                                 R<sup>4</sup> is methyl; and
5
6
                                 X \text{ is } = 0.
```

```
1
                         Claim 23 (withdrawn): The compound in accordance with claim 1, wherein:
                                R^1 is -C(O)CH_3;
2
                                R^2 is methoxy;
3
                                R<sup>3</sup> is methoxy;
                                R<sup>4</sup> is methyl; and
5
                                X \text{ is } = 0.
6
                         Claim 24 (original): The compound in accordance with claim 1, wherein:
1
                                R^1 is -N(CH_3)_2;
2
                                R<sup>2</sup> is methoxy;
3
                                R^3 is methoxy;
4
                                R<sup>4</sup> is methyl; and
5
6
                                X \text{ is } = 0.
                         Claim 25 (original): The compound in accordance with claim 1, wherein:
1
                                R^{1} is -N(CH<sub>3</sub>)<sub>2</sub>;
2
                                R<sup>2</sup> is methoxy;
3
                                R<sup>3</sup> is ethoxy;
4
                                R<sup>4</sup> is methyl; and
5
                                X \text{ is } = 0.
6
1
                         Claim 26 (withdrawn): The compound in accordance with claim 1, wherein:
                                R^1 is -NC<sub>4</sub>H<sub>8</sub>;
2
                                R<sup>2</sup> is methoxy;
3
                                R^3 is methoxy;
4
                                R<sup>4</sup> is methyl; and
5
6
                                X \text{ is } = 0.
```

```
1
                          Claim 27 (withdrawn): The compound in accordance with claim 1, wherein:
2
                                 R^1 is -NC<sub>5</sub>H<sub>10</sub>;
                                 R<sup>2</sup> is methoxy;
3
                                 R<sup>3</sup> is methoxy;
4
                                 R<sup>4</sup> is methyl; and
5
                                 X \text{ is } = 0.
6
                          Claim 28 (withdrawn): The compound in accordance with claim 1, wherein:
1
                                 R^{1} is -NC<sub>5</sub>H<sub>10</sub>;
2
                                 R<sup>2</sup> is methoxy;
3
                                 R^3 is acetoxy;
4
                                 R<sup>4</sup> is methyl; and
5
6
                                 X \text{ is } = 0.
1
                         Claim 29 (withdrawn): The compound in accordance with claim 1, wherein:
                                 R^1 is -C(O)CH_3;
2
                                 R<sup>2</sup> is methoxy;
3
                                 R<sup>3</sup> is acetoxy;
4
                                 R<sup>4</sup> is methyl; and
5
6
                                 X \text{ is } = 0.
                         Claim 30 (withdrawn): The compound in accordance with claim 1, wherein:
1
                                 R^{1} is -O(CH_{2})_{2}N(CH_{3})_{2};
2
                                R<sup>2</sup> is methoxy;
3
                                R<sup>3</sup> is acetoxy;
4
                                R<sup>4</sup> is methyl; and
5
6
                                 X \text{ is } = 0.
```

```
Claim 31 (withdrawn): The compound in accordance with claim 1, wherein:
1
                                R^{1} is -O(CH_{2})_{2}NC_{4}H_{8};
2
                                R<sup>2</sup> is methoxy;
3
                                R<sup>3</sup> is acetoxy;
                                R<sup>4</sup> is methyl; and
5
                                X \text{ is } = 0.
6
                         Claim 32 (withdrawn): The compound in accordance with claim 1, wherein:
1
                                R^1 is -O(CH_2)_2NC_5H_{10};
2
                                R^2 is methoxy;
3
                                R<sup>3</sup> is acetoxy;
4
                                R<sup>4</sup> is methyl; and
5
                                X \text{ is } = 0.
6
                         Claim 33 (withdrawn): The compound in accordance with claim 1, wherein:
1
                                R^{1} is -N(CH_{3})_{2};
2
                                R<sup>2</sup> is -OC(O)CH<sub>2</sub>CH<sub>3</sub>;
3
                                R<sup>3</sup> is acetoxy;
4
                                R<sup>4</sup> is methyl; and
5
6
                                X \text{ is } = 0.
1
                         Claim 34 (withdrawn): The compound in accordance with claim 1, wherein:
                                R^{1} is -N(CH_{3})_{2};
2
                                R^2 is -OC(O)CH_2OCH_3;
3
                                R<sup>3</sup> is acetoxy;
4
                                R<sup>4</sup> is methyl; and
5
6
                                X \text{ is } = 0.
```

```
1
                          Claim 35 (withdrawn): The compound in accordance with claim 1, wherein:
                                 R^{1} is -N(CH_{3})_{2};
 2
                                 R^2 is -OC(O)OCH_3;
  3
                                 R<sup>3</sup> is acetoxy;
  4
                                 R<sup>4</sup> is methyl; and
  5
                                 X \text{ is } = 0.
  6
  1
                           Claim 36 (withdrawn): The compound in accordance with claim 1, wherein:
                                 R^{1} is -N(CH_{3})_{2};
  2
                                 R^2 is -OCH=CH<sub>2</sub>;
  3
                                 R<sup>3</sup> is acetoxy;
 4
                                 R<sup>4</sup> is methyl; and
  5
 6
                                 X \text{ is } = 0.
                          Claim 37 (withdrawn): The compound in accordance with claim 1, wherein:
 1
                                 R^{1} is -N(CH_{3})_{2};
 2
                                 R^2 is -OCH=CH<sub>2</sub>;
 3
                                 R<sup>3</sup> is methoxy;
 4
                                 R<sup>4</sup> is methyl; and
 5
                                 X \text{ is } = 0.
 6
                          Claim 38 (withdrawn): The compound in accordance with claim 1, wherein:
 1
                                 R^{1} is -N(CH_{3})_{2};
 2
                                 R^2 is -OCH=CH<sub>2</sub>;
 3
                                 R<sup>3</sup> is ethoxy;
 4
                                 R<sup>4</sup> is methyl; and
 5
                                 X \text{ is } = 0.
 6
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Claim 39 (withdrawn): The compound in accordance with claim 1, wherein:
1
                               R^{1} is -N(CH_{3})_{2};
2
                              R<sup>2</sup> is -SCN:
3
                              R<sup>3</sup> is acetoxy;
4
                               R<sup>4</sup> is methyl; and
5
                               X \text{ is } = 0.
6
                        Claim 40 (withdrawn): The compound in accordance with claim 1, wherein:
1
                               R^{1} is -N(CH_{3})_{2};
2
                               R^2 is -OC(O)H;
3
                               R^3 is -OC(O)H;
4
                               R<sup>4</sup> is methyl; and
5
                               X \text{ is } = 0.
6
                        Claim 41 (withdrawn): The compound in accordance with claim 1, wherein:
1
                               R^{1} is -N(CH_{3})_{2};
2
                               R^2 is -OC(O)H;
3
                               R<sup>3</sup> is hydroxy;
4
                               R<sup>4</sup> is methyl; and
5
6
                               X \text{ is } = 0.
1
                        Claim 42 (withdrawn): The compound in accordance with claim 1, wherein:
                               R^{1} is -N(CH_{3})_{2};
2
                               R^2 is -OC(O)CH_2N(CH_3)_2;
3
                               R<sup>3</sup> is acetoxy;
4
                              R<sup>4</sup> is methyl; and
5
6
                               X \text{ is } = 0.
```

1	Claim 43 (withdrawn): The compound in accordance with claim 1, wherein:
2	$R^1$ is $-NC_5H_{10}$ ;
3	R <sup>2</sup> is hydrogen;
4	R <sup>3</sup> is acetoxy;
5	R <sup>4</sup> is methyl; and
6	X is = $N-OR^5$ , wherein $R^5$ is hydrogen.
1	Claim 44 (withdrawn): The compound in accordance with claim 1, wherein:
2	$R^1$ is $-N(CH_3)_2$ ;
3	R <sup>2</sup> is hydrogen;
4	R <sup>3</sup> is methoxy;
5	R <sup>4</sup> is methyl; and
6	X is = $N-OR^5$ , wherein $R^5$ is hydrogen.
1	Claim 45 (withdrawn): The compound in accordance with claim 1, wherein:
1 2	Claim 45 (withdrawn): The compound in accordance with claim 1, wherein: $R^1 \ \text{is -NC}_5 H_{10};$
	·
2	$R^{1}$ is $-NC_{5}H_{10}$ ;
2 3	R <sup>1</sup> is -NC <sub>5</sub> H <sub>10</sub> ; R <sup>2</sup> is hydrogen;
2 3 4	R <sup>1</sup> is -NC <sub>5</sub> H <sub>10</sub> ; R <sup>2</sup> is hydrogen; R <sup>3</sup> is methoxy;
2 3 4 5	R <sup>1</sup> is -NC <sub>5</sub> H <sub>10</sub> ;  R <sup>2</sup> is hydrogen;  R <sup>3</sup> is methoxy;  R <sup>4</sup> is methyl; and
2 3 4 5 6	R <sup>1</sup> is -NC <sub>5</sub> H <sub>10</sub> ; R <sup>2</sup> is hydrogen; R <sup>3</sup> is methoxy; R <sup>4</sup> is methyl; and X is =N-OR <sup>5</sup> , wherein R <sup>5</sup> is hydrogen.
2 3 4 5 6	$R^{1} \text{ is -NC}_{5}H_{10};$ $R^{2} \text{ is hydrogen};$ $R^{3} \text{ is methoxy};$ $R^{4} \text{ is methyl}; \text{ and}$ $X \text{ is =N-OR}^{5}, \text{ wherein } R^{5} \text{ is hydrogen}.$ $Claim \textbf{ 46} \text{ (withdrawn): The compound in accordance with claim 1, wherein:}$
2 3 4 5 6 1 2	$R^{1} \text{ is -NC}_{5}H_{10};$ $R^{2} \text{ is hydrogen};$ $R^{3} \text{ is methoxy};$ $R^{4} \text{ is methyl}; \text{ and}$ $X \text{ is =N-OR}^{5}, \text{ wherein } R^{5} \text{ is hydrogen}.$ $Claim \textbf{46} \text{ (withdrawn): The compound in accordance with claim 1, wherein:}$ $R^{1} \text{ is -N(CH}_{3})_{2};$
2 3 4 5 6 1 2 3	$R^{1} \text{ is -NC}_{5}H_{10};$ $R^{2} \text{ is hydrogen;}$ $R^{3} \text{ is methoxy;}$ $R^{4} \text{ is methyl; and}$ $X \text{ is =N-OR}^{5}, \text{ wherein } R^{5} \text{ is hydrogen.}$ $Claim \textbf{46} \text{ (withdrawn): The compound in accordance with claim 1, wherein:}$ $R^{1} \text{ is -N(CH}_{3})_{2};$ $R^{2} \text{ is methoxy;}$

l	Claim 47 (withdrawn): The compound in accordance with claim 1, wherein:		
2	$R^1$ is -NHCH <sub>3</sub> ;		
3	$R^2$ is methoxy;		
4	$R^3$ is acetoxy;		
5	R <sup>4</sup> is methyl; and		
6	X  is  = 0.		
1	Claim 48 (withdrawn): The compound in accordance with claim 1, wherein:		
2	R <sup>1</sup> is -NHCH <sub>3</sub> ;		
3	$R^2$ is acetoxy;		
4	$R^3$ is acetoxy;		
5	R <sup>4</sup> is methyl; and		
6	X  is  = 0.		
1	Claim 49 (original): A pharmaceutical composition comprising an effective		
2	amount of a compound in accordance with claim 1 and a pharmaceutically acceptable excipient.		
1	Claim 50 (withdrawn): A method of producing an antiprogestational effect in a		
2	patient, said method comprising administering to said patient an effective amount of a compound		
3	in accordance with claim 1.		
1	Claim 51 (withdrawn): A method of inducing menses in a patient, said method		
2	comprising administering to said patient an effective amount of a compound in accordance with		
3	claim 1.		
1	Claim 52 (withdrawn): A method of treating endometriosis, said method		
2	comprising administering to said patient an effective amount of a compound in accordance with		
3	claim 1.		

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1	Claim 53 (withdrawn): A method of treating dysmenorrhea, said method				
2	comprising administering to said patient an effective amount of a compound in accordance with				
3	claim 1.				
1	Claim 54 (withdrawn): A method of treating endocrine hormone-dependent				
2	tumors, said method comprising administering to said patient an effective amount of a compound				
3	in accordance with claim 1.				
1	Claim 55 (withdrawn): A method of treating meningiomas, said method				
2	comprising administering to said patient an effective amount of a compound in accordance with				
3	claim 1.				
1	Claim <b>56</b> (withdrawn): A method of treating uterine fibroids in a patient, said				
2	method comprising administering to said patient an effective amount of a compound in				
3	accordance with claim 1.				
1	Claim 57 (withdrawn): A method of inhibiting uterine endometrial proliferation				
2	in a patient, said method comprising administering to said patient an effective amount of a				
3	compound in accordance with claim 1.				
1	Claim 58 (withdrawn): A method of inducing labor, said method comprising				
2	administering to a patient an effective amount of a compound in accordance with claim 1.				
1	Claim 59 (withdrawn): A method of contraception, said method comprising				
2	administering to a patient an effective amount of a compound in accordance with claim 1.				
1	Claim 60 (withdrawn): A method of postcoital contraception, said method				
2	comprising administering to a patient an effective amount of a compound in accordance with				
3	claim 1.				

1		Claim 61 (previously presented):	The compound in accordance with claim 1,
2	wherein:		
3		$R^1$ is $-N(CH_3)_2$ ;	
4		R <sup>2</sup> is methoxy;	
5		R <sup>3</sup> is acetoxy;	
6		R <sup>4</sup> is methyl; and	
7		X  is  = 0.	
1		Claim 62 (previously presented):	The compound in accordance with claim 1,
2	wherein:		
3		$R^{1}$ is $-N(CH_{3})_{2}$ ;	
4		R <sup>2</sup> is acetoxy;	
5		R <sup>3</sup> is acetoxy;	
6		R <sup>4</sup> is methyl; and	
7		X  is  = 0.	
1		Claim 63 (previously presented):	The compound in accordance with claim 1,
2	wherein:		
3		$R^1$ is $-N(C)H_3)_2$ ;	
4		R <sup>2</sup> is ethoxy;	
5		R <sup>3</sup> is acetoxy;	
6		R <sup>4</sup> is methyl; and	
7		X  is  = O.	
1		Claim 64 (previously presented):	The compound in accordance with claim 1,
2	wherein:		
3		$R^{1}$ is $-N(CH_{3})_{2}$ ;	

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```
R^2 is -OC(O)CH_2CH_2C_5H_9;
4
                                 R<sup>3</sup> is acetoxy;
5
                                 R<sup>4</sup> is methyl; and
6
7
                                 X \text{ is } = 0.
                          Claim 65 (previously presented): The compound in accordance with claim 1,
1
2
      wherein:
                                 R^{1} is -N(CH_{3})_{2};
3
                                 R<sup>2</sup> is hydroxy;
4
                                 R<sup>3</sup> is acetoxy;
5
                                 R<sup>4</sup> is methyl; and
6
7
                         X \text{ is } = 0.
```